HUMAN FACTORS ISSUES IN MODIFIED AVIATION SYSTEMS

Question #33: What is the FAA doing to ensure that critical human factors issues are addressed in the acquisition and integration of 100% of new and modified aviation systems?

Answer:

Two strategies have been identified to ensure that human factors issues are addressed in the acquisition and integration of 100% of FAA aviation systems and applications. These strategies cover the primary areas of human factors research and applications using human factors best practices. The following presents an overview of the strategies, including each strategy's associated activities.

Strategy 1: Conduct human factors research to provide the knowledge base and foundation for the integration of human factors into the acquisition of FAA systems and applications. This includes such activities as:

- Conduct human factors research studies to address today's human factors problems and issues (for example, complete the Joint FAA/NASA Air/Ground Integration Experiment).
- Conduct research on the amelioration of contributors to operational errors as identified in the annually updated 5-year human factors plan (for example, complete development of the FAA/Eurocontrol Action Plan).

Strategy 2: Apply human factors policies, processes, and best practices through engineering activities and assessments to ensure human factors issues are integrated in FAA acquisitions and applications. This includes such activities as:

- Monitor FAA acquisition policy/guidance, processes, and best practices and propose revisions as necessary (such as modifying the Acquisition Management System policy, or ensuring the acquisition and assignment of human factors personnel to meet FY00 staffing goals).
- Conduct a review and acquire necessary human factors integration tools, capabilities, and techniques (such as monitoring and developing system emulation prototyping capabilities).
- In conjunction with the Intellectual Capital Investment Plan, propose and conduct human factors awareness training or technical training on subjects such as the application of color to air traffic control systems.
- Conduct an annual assessment across systems and applications to: a) determine the percent of systems that meet or exceed human factors standards; b) assess and establish the human factors infrastructure requirements; c) ensure that human factors issues/potential impacts and risks continue to be identified, documented and resolved; d) ensure that resource requirements and implementation plans are established to resolve outstanding issues; and e) ensure activities are conducted to apply human factors engineering principles.